CLAIMS

1.   Peptide derived from an antibiotic peptide or an analogue thereof, characterised in that it is devoid of a disulphide bond.

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2.   Peptide derived from an antibiotic peptide or an analogue thereof, characterised in that all the cysteine residues, optionally except one, are removed, replaced by another amino acid residue or blocked at their SH group

10   level.

3.   Linear peptide according to any one of claims 1 to 2, characterised in that it meets one of the following formulas :

15   BXXBXXXXBBBXXXXXXB   (I)

             BBXXXBXXXBXXXXBBXB   (II)

             in which :

             - the B groups, identical or different, represent an amino acid residue whose side chain carries

20   a base group, and

             - groups X, identical or different, represent an aliphatic or aromatic amino acid residue,

             or in that it is made up of a succession of at least 5, preferably at least 7, successive amino acids

25   of either of formulas (I) or (II).

4.   Linear peptide according to claim 3, characterised in that the B groups are chosen from among arginine, lysine, diaminoacetic acid, diaminobutyric

30   acid, diaminoproprionic acid, ornithine.

5.   Linear peptide according to one of claims 3 to 4, characterised in that the X groups are chosen from among glycine, alanine, valine, norleucine, isoleucine, leucine, cysteine, cysteine[Acm], penicillamine, methionine, serine, threonine, asparagine, glutamine, phenylalanine, histidine, tryptophan, tyrosine, proline, Abu, carboxylic amino-1-cyclohexane acid, Aib, carboxylic 2-aminotetraline, 4-bromophenylalanine, tert-Leucine, 4-chlorophenylalanine, β-cyclohexylalanine, 3,4-dichlorophenylalanine, 4-fluorophenylalanine, homoleucine, β-homoleucine, homophenylalanine, 4-methylphenylalanine, 1-naphthylalanine, 2-naphthylalanine, 4-nitrophenylalanine, 3-nitrotyrosine, norvaline, phenylglycine, 3-pyridylalanine, [2-thienyl]alanine.

6.   Linear peptide according to any one of claims 1 to 5, characterised in that it meets one of the following formulas :

$RXXRXUXURRRXUXUXXR-NH_2$ (V)

$RRXUXRXUXRXXUXRRUR-NH_2$ (VI)

in which :

- U represents serine or threonine,

- R represents arginine, and

- the X groups, identical or different, represent an amino acid which may or may not be natural, including D-amino acids, either aliphatic or aromatic, such as glycine, alanine, valine, norleucine, isoleucine, leucine, cysteine, cysteine[Acm], penicillamine, methionine, serine, threonine, asparagine, glutamine, phenylalanine, histidine, tryptophan, tyrosine, proline, Abu, carboxylic

amino-1-cyclohexane acid, Aib, carboxylic 2-aminotetraline, 4-bromophenylalanine, tert-Leucine, 4-chlorophenylalanine, β-cyclohexylalanine, 3,4-dichlorophenylalanine, 4-fluorophenylalanine, homoleucine, β-homoleucine, homophenylalanine, 4-methylphenylalanine, 1-naphthylalanine, 2-naphthylalanine, 4-nitrophenylalanine, 3-nitrotyrosine, norvaline, phenylglycine, 3-pyridylalanine, [2-thienyl]alanine.

7.   Linear peptide according to any one of claims 1 to 6, having the following sequences :

RGGRLSYSRRRFSVSVGR,

RGVSVSFRRRSYSLRGGR,

EGGELSYSEEEFSVSVGE,

RGGRLAYRLLRFAIRVGR,

OGGOXXBOXXOBXXXOXG,

RAARLGYRXXRFGZRVGR,

YRRRFSVSVR,

RRLSYSRRRF,

RRLSYSRRRFSVSVR,

RGGRLSYSRRRFSTSTGR,

in which B represents Napthylalanine, 0 represents Ornithine, X represents Norleucine and Z represents Norvaline.

8.   Linear peptide according to any one of claims 1 to 6, having the following sequences :

KWSFRVSYRGISYRRSR,

RWSFRVSYRGISYRRSR,

RSRRYSIGRYSVRFSWK,

OBXBOXXBOGXOBXXOX,

KWAFRVAYRGIRYLLRL,

KYAWRVAHRGIRWLLRX

in which B represents Napthylalanine, O represents Ornithine, X represents Norleucine and Z represents Norvaline.

9. Use of an antibiotic peptide or an analogue thereof, devoid of a disulphide bond, to vector active substances in an organism.

10. Use of a peptide according to any one of claims 1 to 8 to vector active substances in an organism.

11. Compound with the following formula (IV) :

$$(Y)_n \quad (A) \quad (Z)_m \qquad (IV)$$
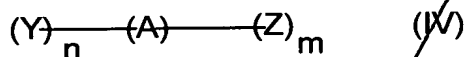
in which :

- A represents a linear peptide derived from an antibiotic peptide or from an analogue thereof,

- Z represents an active substance

- Y represents a signal agent

- n is 0 or more, advantageously 0 or 1,

- m is 1 or more, preferably up to 10, advantageously up to 5.

12.   Compound of formula (IV) in which A is defined as in any one of claims 1 to 8.

13.   Compound according to one of claims 11 or 12, characterised in that the coupling between the linear peptide (A) and group (Z) or groups (Z) and (Y) is made by one or more covalent, hydrophobic or ionic bonds.

14.   Compound according to any one of claims 11 to 13, characterised in that at least one of the active substances (Z) is attached by a covalent bond either to the N-terminal or C-terminal ends or to the primary amino groups, carried by the side chains of the lysines, of linear peptide (A).

15.   Compound according to any one of claims 11 to 14, characterised in that at least one signal agent (Y), if present, is attached by a covalent bond to the N-terminal end of linear peptide (A).

16.   Pharmaceutical composition, characterised in that as active ingredient it comprises at least one compound of formula (IV) according to any one of claims 11 to 15.

17.   Diagnostic agent made up of at least one compound of formula (IV) according to any one of claims 11 to 15.